




## CLAIMS

### WHAT IS CLAIMED IS:

1 1. A power semiconductor module for mounting on a flat body,  
✓ 2 comprising   
✓ 3  a plurality of partial modules, each of said partial modules having a base plate;  
4 a framelike housing;  
5 terminal elements for load terminals and auxiliary terminals;  
6 at least one electrically insulated substrate disposed inside said housing on said  
7 base plate, said substrate having an insulation body with a plurality of metal connection  
8 tracks located therein and insulated from one another, and power semiconductor  
9 components, located on said connection tracks and electrically connected thereto with  
✓ 10  appropriate wiring; and  
11 means for connecting adjacent partial modules to one another.

✓ 1 2. The power semiconductor module of claim 1, wherein said means for  
2 connecting is a cap.

1 3. The power semiconductor module of claim 2, wherein  
2 said cap is connected to said partial modules by means of snap-detent  
3 connections, said housing has detent lugs, and said cap has abutments formed to  
4 cooperate with said detent lugs.

1 4. The power semiconductor module of claim 2, wherein  
2 each partial module has at least two open-slotlike recesses on a side  
3 thereof, and positioned so that, when said partial modules are assembled into a power

4 semiconductor module, said recesses in sides of adjacent partial modules face one  
5 another to form closed slots.

1           5.     The power semiconductor module of claim 4, wherein  
2                 said cap has round slotlike recesses for receiving screws, which, in the  
3 abutting region of said partial modules, are aligned with said recesses that form said  
4 slots therein.

1           6.     The power semiconductor module of claim 1, wherein  
2                 each of said partial modules has, on a first side adjacent to another partial  
3 module, at least one detent lug, and on a second, opposite, side thereof has at least  
4 one abutment adapted to cooperate with a detent lug in an adjacent partial module

1           7.     The power semiconductor module of claim 1, wherein said means  
2 for connecting comprises fixing connections.

1           8.     The power semiconductor module of claim 7, wherein  
2                 said fixing connections include a snap-detent connection for connection of  
3 a first partial module to an adjacent partial module.

1           9.     The power semiconductor module of claim 8, wherein  
2                 each of said partial modules has at least two open-slotlike recesses on a  
3 side thereof, and positioned so that, when said partial modules are assembled into a  
4 power semiconductor module, said recesses in said sides of adjoining partial modules  
5 face one another to form closed slots.

- 1                    10.    The power semiconductor module of claim 7, wherein
- 2                    said fixing connections include a rail that covers all said recesses and said
- 3   slots formed thereby in adjacent partial modules.